



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

August 28, 2013

WELL WORK PERMIT

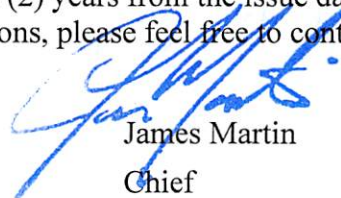
Vertical Well

This permit, API Well Number: 47-10501370, issued to MOUNTAIN V OIL & GAS, INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: KITTLE #1 WV0461
Farm Name: SMITH, GARLAND V. ,.ET AL
API Well Number: 47-10501370
Permit Type: Vertical Well
Date Issued: 08/28/2013

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the fill material shall be within plus or minus 2% (unless soil test results show a greater range of moisture content is appropriate and 95% compaction can still be achieved) of the optimum moisture content as determined by the standard proctor density test, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort. Each lift must meet 95 % compaction of the optimum density based on results from the standard proctor density test of the actual soils used in specific engineered fill sites. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
3. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
4. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
5. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
6. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
7. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator Mountain V Oil & Gas, Inc. 310020 Wirt Reedy Liverpool 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Kittle #1 WV0461 Elevation: 1,095'

4) Well Type: (a) Oil _____ or Gas X
(b) If Gas: Production X Underground Storage _____
Deep _____ / Shallow X

5) Proposed Target Formation(s): Berea Proposed Target Depth: 2,900'

6) Proposed Total Depth: 2,900 Feet Formation at Proposed Total Depth: Berea

7) Approximate fresh water strata depths: 260' & 919', 1,100'

8) Approximate salt water depths: 1,100' & 1,570' & 2,073'

9) Approximate coal seam depths: None

10) Approximate void depths, (coal, karst, other): None

11) Does land contain coal seams tributary to active mine? No

12) Describe proposed well work in Detail See attached addendum

13) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	13 3/8"			42'	42'	Sand
Fresh Water	9 5/8"			350'	350'	CTS or 35 CSR 18 - 11.1
Coal						
Intermediate	7"			2250'	2250'	CTS or 35 CSR 18 - 11.1
Production	4 1/2"			2900'	2900'	See Addendum
Tubing						
Liners						

Packers: Kind
Sizes
Depths Set

Addendum to WW-2B
Kittle #1 WV0461 WV0460 API 47-105-0

12) Describe proposed well work in detail:

1. Construct the drilling location.
2. Drill a 16" hole to approximately 42'.
3. Run approximately 42' of 13-3/8" casing and fill around outside of casing with cuttings.
4. Drill a 12-1/4" hole to approximately 365'.
5. Run approximately 350' of 9-5/8" casing.
6. Cement the 9-5/8" casing back to surface.
7. Drill an 8-3/4" hole to the approximate depth of 2,275'.
8. Run approximately 2,250' of 7" casing.
9. Cement the 7" casing back to surface.
10. Drill a 6-1/4" hole to the estimated total depth of approximately 2,900'.
11. Run approximately 2,900' of 4-1/2" casing.
12. Cement the 4-1/2" casing back to a point above the anticipated perforations.
13. Perforate the Berea formation.
14. Frac the Berea formation with approximately 40,000# of 20/40 sand and 1,500 barrels of water.
15. Reclaim the drilling location.

Received

JUL 13 2006

10501370

Kittle #1 WV0461

3) API Well No.: 47 - 105 -
State County Permit

Notary Public

The Office of Oil and Gas Processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyoffier@wv.gov.

Office of Oil and Gas
phone number, as a part of our reg
WV Dept. of Environmental Protection

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Mountain V Oil & Gas, Inc. OP Code _____

Watershed Enoch Fork Quadrangle Liverpool 7.5'

Elevation 1,095' County Wirt District Reedy

Description of anticipated Pit Waste: Drill Cuttings and Frac Flowback Water

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes ___ No X

Will a synthetic liner be used in the pit? Yes What ml.? 20 Mil

Proposed Disposal Method For Treated Pit Wastes:

XX Land Application
____ Underground Injection (UIC Permit Number _____)
____ Reuse (at API Number _____)
____ Off Site Disposal (Supply form WW-9 for disposal location)
____ Other (Explain _____)

Drilling Medium anticipated for this well? Air, Freshwater, oil based, etc. Air for vertical

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. _____

-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust

-Landfill or offsite name/permit number? _____

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Division of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature [Signature]

Company Official (Typed Name) Mike Shaver

Company Official Title President

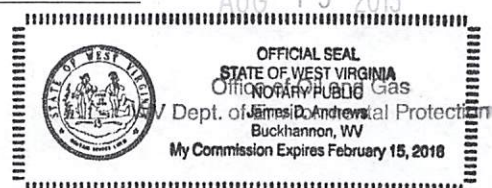
Subscribed and sworn before me this 8th day of August, 20 13

[Signature] Notary Public

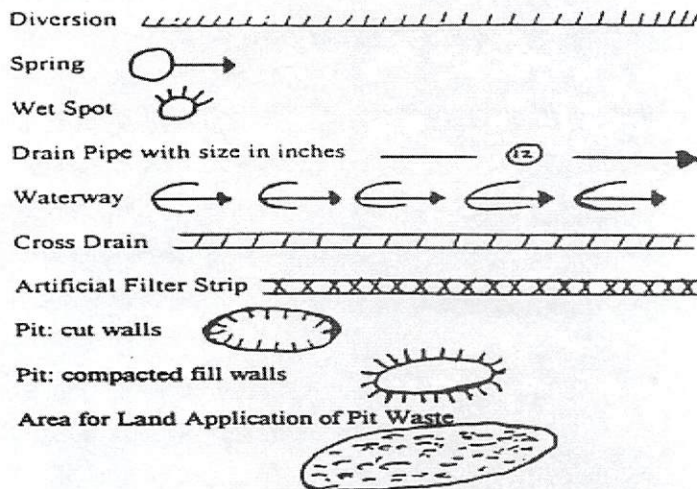
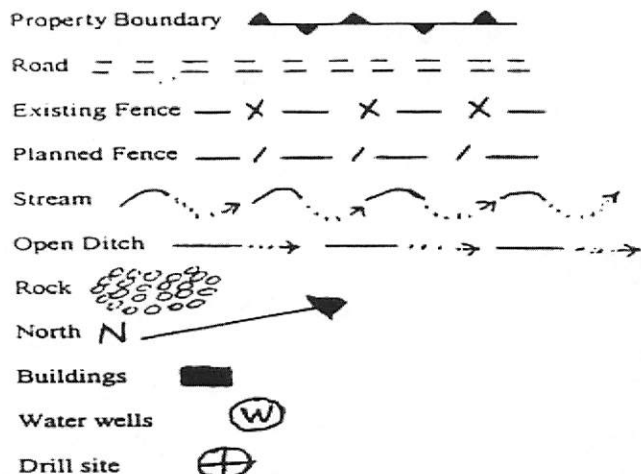
Received

My commission expires 2-15-2018

[Signature]
8-12-13



LEGEND



Proposed Revegetation Treatment: Acres Disturbed 2.0 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 1/2 ton lbs/acre (500 lbs minimum)

Mulch Hay 2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
<u>Meadow Mix</u>	<u>40</u>	<u>Orchard Grass</u>	<u>15</u>
<u>Alsike Clover</u>	<u>5</u>	<u>Alsike Clover</u>	<u>5</u>
<u>Annual Rye</u>	<u>15</u>		

Attach:

Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by:

Comments: _____

Title: Inspector

Date: 8-12-13

Field Reviewed?

(X) Yes

() No

Received

AUG 13 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

KITTLE
WELL NO. 1 WV0461

TEMPORARILY SEED AND
MULCH ALL SLOPES UPON
CONSTRUCTION OF LOCATION.

6-111

PAGE OF

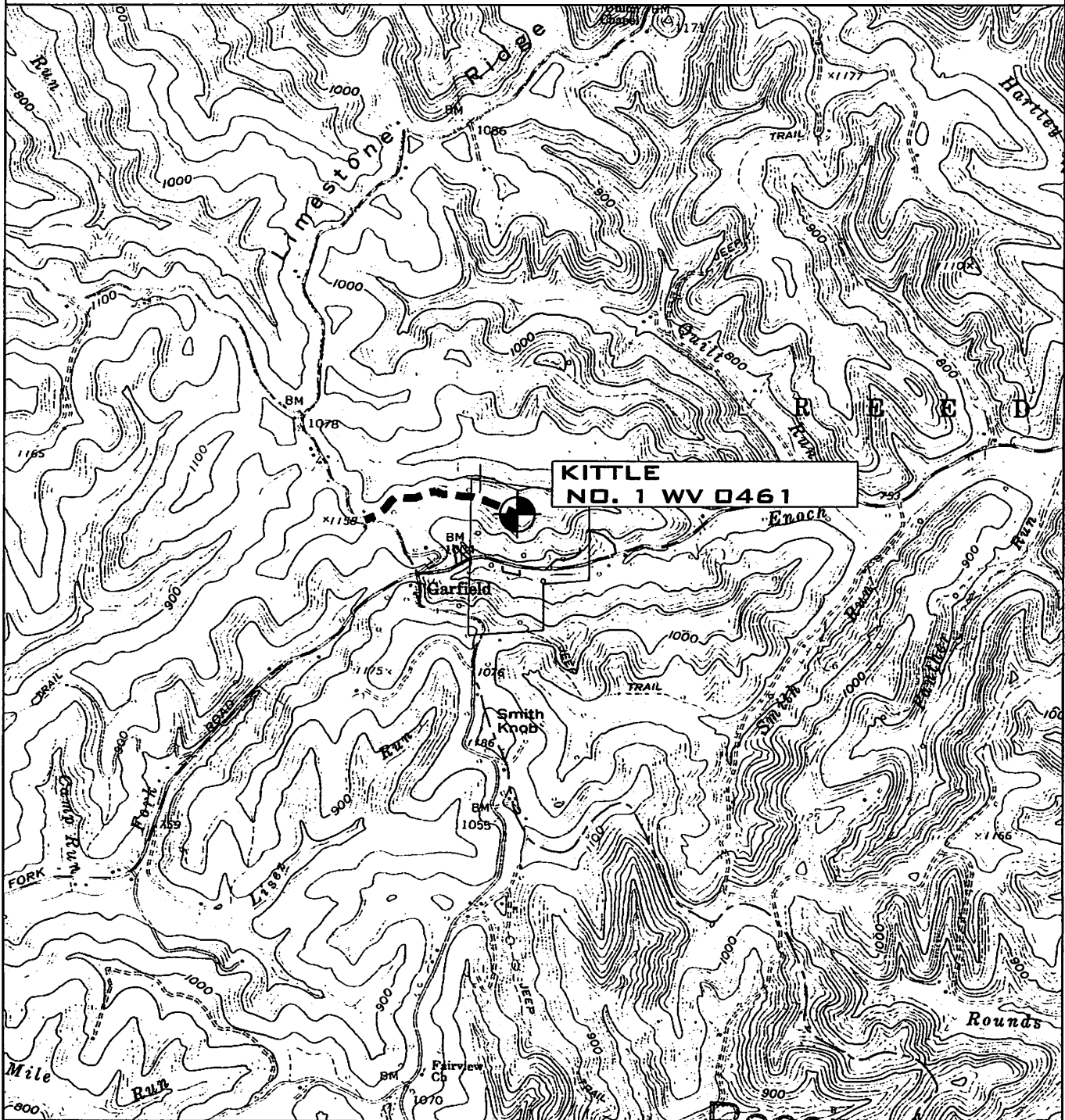
10561370

10501370

WW9

KITTLE #1 WV 0461

PAGE OF



ANGLE RIGHT LAND SURVEYING, LLC PO BOX 881 GRANTSVILLE, WV 26147 (304) 364-0085 130602	OPERATOR		TOPO SECTION	WELL NAME
	MOUNTAIN V OIL & GAS, INC.		LIVERPOOL 7.5	KITTLE #1
	P.O. BOX 470		SCALE	DATE
	BRIDGEPORT, WV 26330		1"=2000'	08/01/2013

Office of Oil and Gas
 WV Dept. of Environmental Protection

NAD 83 LAT: 38°57'25.7"
DECIMAL LAT: 38.95714

11,305'

LATITUDE 38° 57' 30"

KITTLE LEASE WELL NO. 1 WV0461 62.5± ACRES

R. CAIN
52.194 AC.
WIRT CTY
REEDY 10-07

E. KITTLE
40 AC.
WIRT CTY
REEDY 10-08

E. KITTLE
32.4 AC.
WIRT CTY
REEDY 10-09

E. KITTLE
39.25 AC.
WIRT CTY
REEDY 10-18

PROPOSED WELL
UTM NAD 83 ZONE 17
COORDINATES
(IN METERS)
N) 4,312,158.9 M
E) 453,249.4 M

R. CAIN
47.978 AC.
JACKSON CTY
RAVENSWOOD 10-17

D. RICHARDS
.97 AC.
WIRT CTY
REEDY 10-14.1

G. SMITH
38.809 AC.
WIRT CTY
REEDY 10-15

G. SMITH
9.506 AC.
WIRT CTY
REEDY 10-11

J. McKOWN
4.75 AC.
WIRT CTY
REEDY 10-42

R. SIMS
11.03 AC.
WIRT CTY
REEDY 10-14

G. SMITH
32 AC.
WIRT CTY
REEDY 10-15.2

R. DENNIS
38.119 AC.
WIRT CTY
REEDY 10-17.1

D. WILKINSON
.506 AC.
WIRT CTY
REEDY 10-15.1

M. BUTLER
32.91 AC.
WIRT CTY
REEDY 10-16

T. WILKINSON
5.91 AC.
WIRT CTY
REEDY 10-21.1

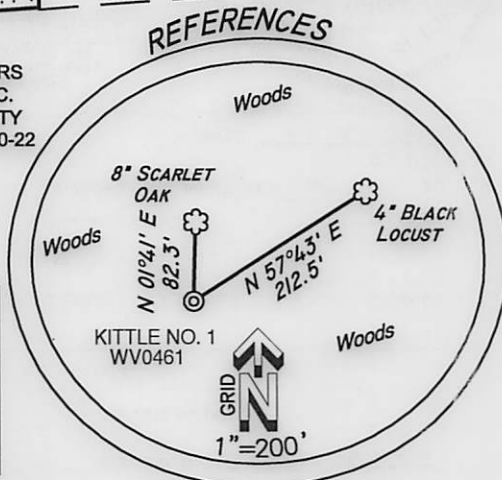
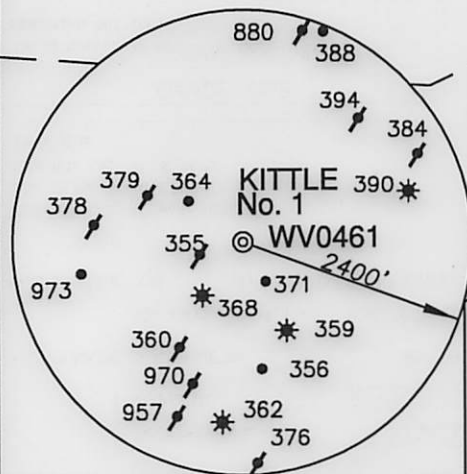
W. AYERS
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WIRT CTY
REEDY 10-22

REFERENCE NOTES

LEASE AS SHOWN TAKEN
FROM PLAT FOR API 4710500371
PREPARED BY L.F. DYE DATED
MARCH 29, 1958.

OWNERSHIP TAKEN FROM PUBLIC
RECORDS OF JACKSON &
WIRT COUNTY, IN JULY, 2013.

LAT./LONG. BY DIFFERENTIAL
SUBMETER MAPPING GRADE GPS



(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

FILE NUMBER G130602(WB18-10)

DRAWING NUMBER G130602_WP1

SCALE 1" = 500'

MINIMUM DEGREE
OF ACCURACY 1/200

PROVEN SOURCE
OF ELEVATION SUBMETER MAPPING
GRADE GPS

WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304

I THE UNDERSIGNED HEREBY CERTIFY THAT THIS PLAT IS CORRECT
TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE
INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND
PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.S.
1006



DATE: JULY 30, 2013

OPERATORS WELL NO. NO. 1 / WV0461

API WELL NO.

47-105-01370

STATE COUNTY

PERMIT

WELL TYPE: OIL ___ GAS ☒ LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION ☒ STORAGE ___ DEEP ___ SHALLOW ☒

LOCATION ELEVATION 1,095' WATERSHED ENOCH FORK

DISTRICT REEDY COUNTY WIRT

QUADRANGLE LIVERPOOL 7.5'

LEASE NUMBER

SURFACE OWNER GARLAND V. SMITH et al

ACREAGE 38.809±

OIL & GAS ROYALTY OWNER GOLDY V. KITTLE et al

LEASE ACREAGE 62.5±

PROPOSED WORK: DRILL ☒ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ☒ PLUG OFF OLD FORMATION ___
PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE (SPECIFY) ___

PLUG & ABANDON ___ CLEAN OUT & REPLUG ___

TARGET FORMATION BEREA

ESTIMATED DEPTH 2,900'

WELL OPERATOR MOUNTAIN V OIL & GAS, INC.

DESIGNATED AGENT MIKE SHAVER

ADDRESS P.O. BOX 470, BRIDGEPORT, WV 26330

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COUNTY NAME
PERMIT

10501370

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11,305'

LATITUDE 38° 57' 30"

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DECIMAL LON: 81.53957

465'

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WIRT CTY
REEDY 10-07

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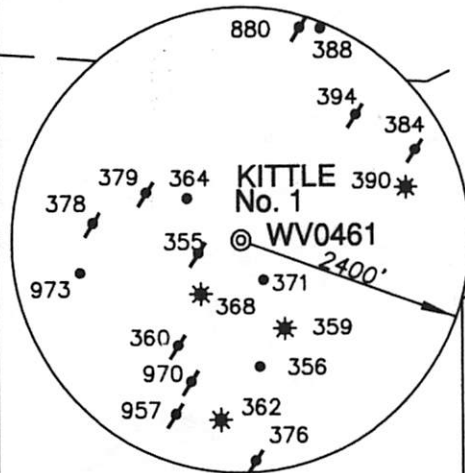
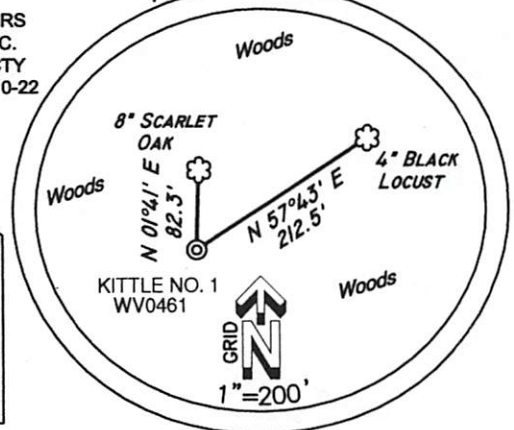
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COUNTY NAME

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